



South Carolina

Biobased Fuels, Power, and Products State Fact Sheet

Growing a Cleaner, Stronger Economy in South Carolina

An estimated 13.6 billion kWh of electricity could be generated using biomass in South Carolina. This is enough electricity to fully supply 64% of annual residential electricity consumption in the state. The estimated supplies of urban and mill residues available for energy uses are 2,150,000 and 3,382,000 dry tons per year, respectively. The state's estimated forest residues are 1,158,000 dry tons per year. The production potential for energy crops is estimated at 2,438,000 dry tons per year. In 1999, approximately 1.5 billion kWh of net electricity was produced using biomass, of which 96% of was produced from wood and wood waste.

The South Carolina Energy Office (SCEO) works to promote the use of renewable energies and sustainable development practices throughout South Carolina. The office has signed on as a state ally in EPA's Landfill Methane Outreach Program (LMOP) to promote the development of landfill gas to energy projects in the state. On September 4, 2001 the first landfill gas to energy generation facility in South Carolina went into commercial operation. This 2.2 MW facility was a joint project of Santee Cooper, the Horry County Solid Waste Authority, Horry Electric Cooperative, and Central Electric Power Cooperative.

SCEO is funding projects that explore new applications and uses for biomass. The SCEO funded a project at Clemson University to determine if soybean derived diesel fuel would be a viable alternative fuel for both industrial and commercial use in South Carolina. Furthermore, the SCEO and Clemson University have undertaken a project to determine the most cost-effective method to implement an on-farm biogas system and encourage on-farm biogas production.

Biobased Fuels, Power, and Products in South Carolina

Bio-Industry	Sales (\$1,000)	Employees	Capacity	Number of Facilities
Power	N/A	1535	309 MW	10
Fuels	N/A	N/A	N/A	0
Products	N/A	N/A	- -	2

N/A - no information available

- - Comparative capacity data not available among products

Federal R&D Partners

Clemson University
(Clemson)

Biomass Resources

Corn:	260,000 acres planted 25,920,000 bushels produced
Soybeans:	450,000 acres planted 9,460,000 bushels produced
Wheat:	220,000 acres planted 9,030,000 bushels produced
CRP:	209,367 acres enrolled
MSW:	4,483,000 tons generated
Forest Land:	12,495,000 acres
Poultry:	212,785,000 head
Livestock:	730,000 head



Federally Funded Biomass RD&D in South Carolina

Select a project
title for details

U.S. Department of Agriculture

- Secondary Metabolite Production in Novel Plant Bioreactor Systems
- Integrated Weed Management Systems for Cotton, Corn, and Soybeans
- Distribution and Nutrient Content of Living and Dead Above-Ground Biomass in Southern Appalachian
- Floodplain Forests and Water Quality: Influence of Ecosystem Type and Biogeochemistry
- Integrated Weed Management in Southeastern Soybeans
- Carbon Sequestration and Nutrient Conservation of 16-yr-old Naturally Regenerated Loblolly Pine
- Improving Cultural Practices for Alternative and Traditional Vegetable Crops for South Carolina
- Biological Control of Soilborne Plant Pathogens for Sustainable Agriculture
- In Vitro Culture of Medicinal Plants and Investigation of their Active Ingredients
- Integrated Unit Operations for a Sustainable Aquaculture Process
- Long-Term Ecology of Prescribed Burning and a Non-Burning Alternative in Coastal Plain Forests
- Preparation of Composites from Juvenile Wood Fiber and Recycled Plastics

For additional information on RD&D Projects, please click on the project title.

For additional information on state activities, please contact:

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